



Australian Government

Department of Education, Employment and Workplace Relations

PUADEF0H008B Develop ionising radiation safety plans

Revision Number: 1

PUADEF0H008B Develop ionising radiation safety plans

Modification History

Not applicable.

Unit Descriptor

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This unit covers the competency required to measure and analyse **ionising radiation** and to develop relevant safety plans and procedures.

The unit includes developing and drafting policy, procedures and plans/instructions for the management, amelioration and/or control of ionising radiation in the workplace.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s Nil

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for the development of ionising radiation safety plans	1.1 Ionising radiation sources are identified and confirmed in accordance with organisational policy and procedures 1.2 Standards and legislation appropriate to ionising radiation exposure levels are identified and accessed 1.3 Existing organisational records relevant to ionising radiation are identified and accessed 1.4 Equipment and resources required for the measurement of ionising radiation are identified, acquired and prepared in accordance with organisational procedures
2. Measure ionising radiation	2.1 Measuring equipment is deployed in accordance with manufacturers' instructions and organisational procedures 2.2 Readings are recorded in accordance with organisational policy and procedures 2.3 Occupational health and safety (OH&S) requirements including those contained in organisational procedures, are applied throughout the operation
3. Analyse ionising radiation	3.1 Measurements are interpreted and confirmed in accordance with measuring protocols 3.2 Ionising radiation is analysed/determined and findings are reported to appropriate authorities/superiors in accordance with legislation and organisational policy and procedures
4. Develop ionising radiation safety plans	4.1 Appropriate consultation with stakeholders is conducted in accordance with relevant organisational policy and procedures 4.2 Technical standards, organisational environmental requirements and ionising radiation exposure levels are identified and interpreted 4.3 Ionising radiation safety plans are developed in accordance with legislative requirements and organisational policy and procedures 4.4 Ionising radiation safety plans are forwarded in accordance with organisational policy and procedures

5. Record and interpret data from personal monitors

- 5.1 Full exposure data from personal monitors is clearly recorded in accordance with legislative requirements and organisational policy and procedures
- 5.2 Individual records are made available to the radiation worker in accordance with legislative requirements and organisational policy and procedures
- 5.3 **Appropriate action** is initiated whenever anomalous records are obtained, in accordance with legislative requirements and organisational policy and procedures
- 5.4 Personal monitoring records are reviewed regularly and recommendations for changes in workplace procedures are recommended as appropriate in accordance with legislative requirements and organisational policy and procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- analyse
- communicate
- negotiate
- operate ionising radiation measuring equipment
- plan

Required Knowledge

- ionising radiation control requirements
- ionising radiation exposure level standards/requirements
- ionising radiation legislation
- ionising radiation measuring techniques and equipment
- OH&S requirements for the organisation/industry and for supervisors/managers in the workplace
- relevant Australian and international standards
- relevant environmental factors relating to workplace ionising radiation
- relevant organisational policy and standards
- reliability of measures
- tolerances of error that may apply

Evidence Guide

EVIDENCE GUIDE

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EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to observe and respond to changing circumstances and unusual situations in the workplace; to conduct a quality assurance check against previous recommendations; and to identify changes in workplace configurations.

Consistency in performance

Competency should be demonstrated over a range of environments and workplace ionising sources. This may be in the workplace or in a simulated workplace environment.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access to relevant research material, manufacturers' equipment specifications and existing related standards, policy and instructions.

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

RANGE STATEMENT

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

Ionising radiation may include	X-rays, electrons, neutrons and gamma rays, beta particles and alpha particles emitted from radioactive elements And may include controlled apparatus such as dental, medical and industrial x-rays, sealed sources and unsealed sources
Standards and legislation may include	State/territory/commonwealth legislation Relevant Australian Standards and international standards (such as AS/NZS 1269.2:1998 Occupational Ionising Management, Part 2: Ionising control management)
Exposure levels may include	Occupationally exposed radiation worker - low level, medium level, high level Worker not occupationally exposed
Organisational records may include	Electronic records Inventories Journals Registers
Equipment and resources may include	Gauges Ionising radiation measuring and monitoring instruments Recording devices
Preparation of equipment and resources may include	Calibration of testing equipment Testing equipment for safe operation (confidence testing) Testing equipment for serviceability
Occupational health and safety requirements may include	Award provisions State/territory/commonwealth and local government legislation and by-laws

RANGE STATEMENT**Stakeholders may include**

External agencies
 Government/agency regulators/inspectors
 Immediate supervisors
 Internal agencies
 OH&S representatives
 Other interested parties, including members of the public
 Relevant personnel in the chain of command
 Unit managers

Ionising radiation safety plans may include

Monitoring processes
 Protocols and local controls
 Recommendations for additional control measures
 Referrals to other experts

Appropriate action may include

Cessation of all work where ionising radiation is present
 Immediate referral of worker/s to qualified medical officers
 Installation of protective devices (such as alarms and/or warning signs) to minimise exposure
 Modification of work practices in the vicinity of the ionising radiation

Unit Sector(s)

Not applicable.

Corequisite Unit/s**Co-requisite Unit/s**

Nil